



Naval Science & Technology *Alignment Update*

8 April 2004

**N780B Presentation
to the
Assault Advanced Technology Review Board**

Birkholz, USMC

Col Keith

N780B



CNO S&T Guidance

Present N6/N7 efforts to align Future Naval Capability Programs (FNCs) with Sea Power and Naval Transformation per 2003 CNO

CNO 2003 Guidance

Science and Technology - “Maintain at least \$10B in RDT&E investments. *Employ the Future Naval Capability Program to coordinate and integrate the development of next generation warfighting capabilities. (N7/N8)”*



Briefing Background

As of Jan 04:

- ASN(RDA) S&T Study – Complementary, comprehensive review of entire Navy S&T portfolio
- Restructuring of Future Naval Capabilities (FNC) - specifically Enabling Capabilities - by Warfare Sponsors to focus on capability gaps
- Engagement of FNC Technology Oversight Group (*TOG, N6/N7, MCCDC, CNR, CFFC, DASN(RDT&E)*) to approve changes
- Senior naval leadership oversight (S&T Corporate Board: VCNO, ACMC, ASN(RDA)) to:
 - Develop S&T Strategic Guidance
 - Review S&T Investment Balance
- Pursue with DARPA Transformational Disruptive Technology Opportunities (DTO)



ASN(RD&A) Memo 16 Jun 2003

Review S&T planning processes and investment portfolio

Reason for study:

**“S&T programs are essential to Navy and Marine Corps transformation,
and to the long term future of our Fleet and Forces”-
ASN(RDA), 16 June 2003**

Need to Assess:

- 1. Overall balance & Naval relevance of S&T program**
- 2. Planning process for future S&T investments**
- 3. Effectiveness of technology transition plans & processes**
- 4. Needs and trends in technical staff at ONR & NRL**

Study Outputs

- ✓ Recommended improvements**
- ✓ Recommended guidance for POM 06**



General Observations

- **Importance of S&T - options for an uncertain future, prevent technological surprise**
 - ONR/NRL have a solid record of accomplishments, due largely to their own initiative and innovation
 - Increased emphasis on transition is driving a culture change
- **DoN needs S&T vision, strategy or guidance**
 - It is left to ONR to develop S&T strategy
 - Except for FNCs, there is minimal DoN stakeholder ownership
 - There is no external standard or process for judging whether ONR has the best overall balance in the S&T portfolio

PPBES process views S&T as level of effort or “a bunch of stuff” with no clear connection to Navy priorities



ASN(RDA) S&T Review Recommendations

- ASN(RDA)
 - Advocate S&T Corp Board actions -- Strategy and POM06 guidance
 - Direct improvements in ONR processes
 - Memo being drafted by Sec Young to S&T Corporate Board to embrace results and carry forward
- S&T Corporate Board (VCNO, ACMC, ASN (RDA))
 - Embrace ASN (RDA) recommendations and Issue DoN S&T Strategy
 - Direct S&T fiscal/planning guidance for POM 06
- **Technology Oversight Group (TOG)**
 - **Define and execute process for future FNCs and ECs**
 - **Evaluate EC wholeness**
 - **Approve goals for project transitions, track progress**
 - **Add N8 and P&R reps to improve connection to PPBES**



S&T Investment Program Background circa 1998

- **Concern whether S&T delivered to the Fleet**
- **S&T investment was platform centric**
- **S&T needed more focus on Naval capabilities**
- **Acquisition commitment was lacking for mature S&T technologies**
- **Too much 'Technology Push' - Not enough 'Requirements Pull'**
- **Continual downward trend of S&T investment**

**New Process was required to increase impact of
S&T investment - The **Future Naval Capability****

(FNC) Process



Future Naval Capabilities (Initial Approach)

FNCs - A new way of doing S&T at ONR

**Partnered S&T with the requirements and acquisition communities -
sought to emphasize S&T funding coupled to acquisition funding**

Focused on delivering transitionable technology

Cost, schedule and performance critical measures of FNC success

Each FNC subdivided into **Enabling Capabilities (ECs)**

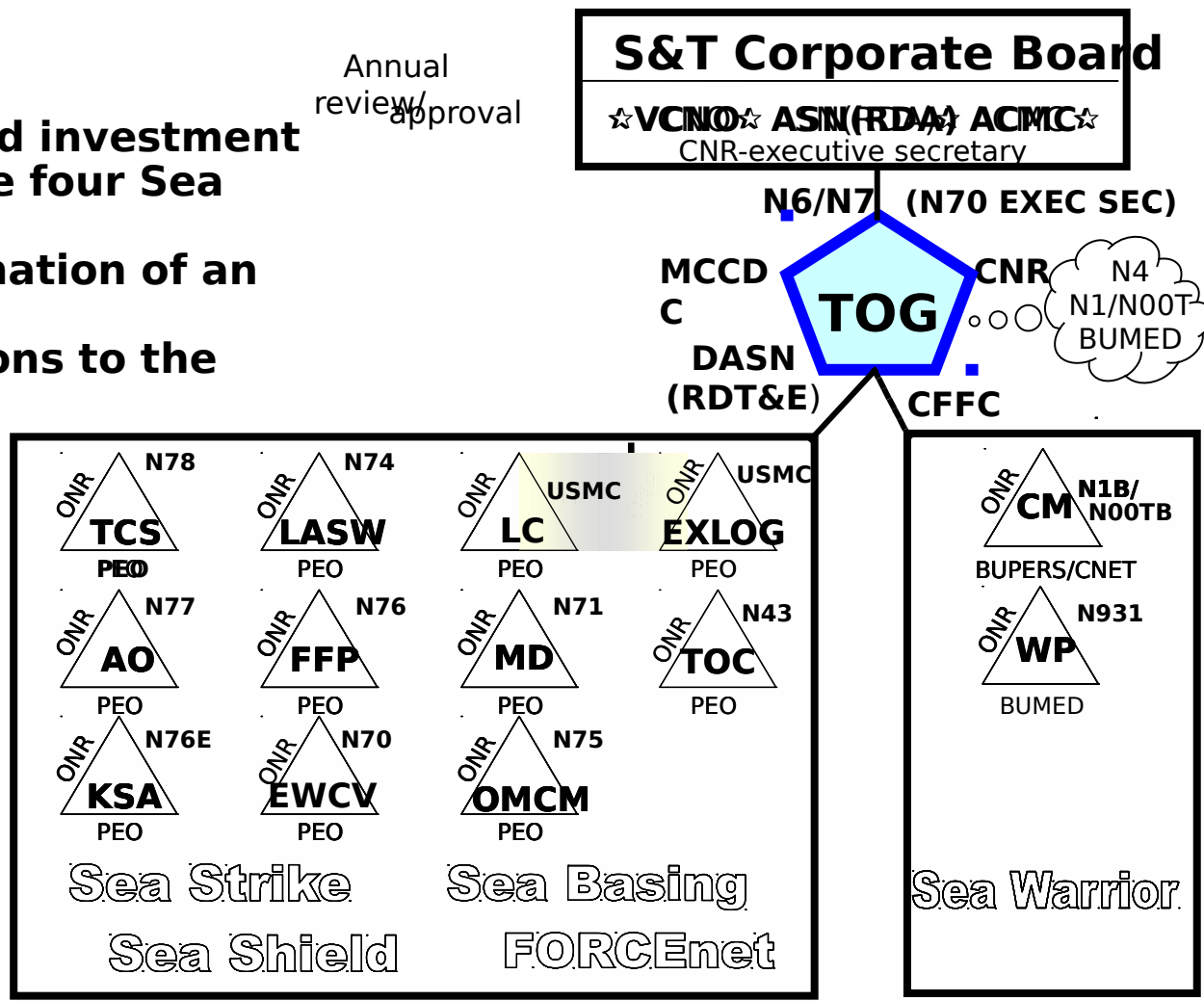




Technology Oversight Group (TOG) Structure

TOG Functions

- Align FNC resources and investment strategies to address the four Sea Power 21 capabilities.
- Approve start or termination of an FNC/Enabling Capability.
- Provide recommendations to the S&T Corporate Board.





Summary

- **Process to align S&T to warfighter needs is emerging**
 - **N6/N7 Warfare Sponsors/IPT Chairs “getting on top of” FNCs**
 - ✓ **Need to explore (with ONR assist) non-FNC “surround space” for EC wholeness**
 - **N6/N7 BoD to determine/prioritize warfighting gaps**
 - ✓ **Realign \$’s for critical mass against hi-priority gaps**
 - **ASN (RDA) study determined the need for Naval S&T strategic guidance and oversight across entire S&T portfolio**
 - **S&T Corporate Board to engage**
 - **FNCs “OK” for now but must deliver over the near**
- Focused Naval S&T program with effective stewardship per 2003 CNO Guidance**

warfighter
involvement

Enabling Technologies to Achieve Vision

